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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Vladimir Savchenko

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EXAMINER

HIGA, BRENDAN Y

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/750,058	Applicant(s) SAVCHENKO ET AL.	
	Examiner BRENDAN Y. HIGA	Art Unit 2453	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to Applicant's amendment and request for reconsideration filed on October 03, 2008.

Claims 35-58 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 40, 48 and 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 40 reads "wherein the deployed web service to operate within the web services container on the application server". The limitation is generally unclear and is therefore rejected under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 48 and 56 recite identical language and are rejected under 35 U.S.C. 112, second paragraph, for the same reasons as noted with respect to claim 40.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35, 36, 38, 43, 44, 46, 51, 52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (US 2004/0015564) (“Williams”), in view of Kenyon et al. (US 6,604,113) (“Kenyon”), in further view of A. Banerji, et al. Web Services Conversation Language (WSCL) 1.0, W3C Note, World Wide Web Consortium, March 2002. URL <http://www.w3.org/TR/wscl10/>

As per claim 35, Williams teaches a method in an application server, comprising:

Receiving a Web service archive (see ¶0077) including a Web service implementation having abstract design-time functionality (i.e. [business logic] components, see ¶0077-¶0078 and ¶0058-¶0062) therein, the abstract design-time functionality being independent of runtime requirements of the application server (see also ¶0073 wherein at least part of the business logic is represented by a flow language such as WSCL, which is independent of runtime requirements of the application server, also see A. Banerji, et al. Web Services Conversation Language (WSCL) 1.0, W3C Note, World Wide Web Consortium, March 2002. URL <http://www.w3.org/TR/wscl10/>), and wherein the Web service archive further includes a Web service deployment descriptor (“descriptor files”, see ¶0077) specifying a mapping of the abstract design-time functionality to the runtime implementation requirements of the application server (see “mapping descriptors”, ¶0074);

Unpacking the Web service implementation and the Web service deployment descriptor from the Web service archive (see ¶0078 and ¶0081, wherein the packages archive file is deployed on a runtime platform, which inherently requires the step of unpacking the archive file); and

Executing the abstract design-time functionality as a deployed Web service within the application server based on the mapping specified by the Web Service deployment descriptor (see ¶0080-¶0081).

Williams does not expressly teach the web service being unpacked into a directory within the application server.

Nevertheless, such a step was well known in the art, for example, in the same art of software distribution, Kenyon teaches the step of unpacking an archive file into a network map directory on the current drive (see col. 8, lines 33-51).

One of skill in the art would have been motivated to modify the teachings of Williams with the teachings of Kenyon. The motivation for doing so would have been to improve organization efficiency in deploying the Web service implementation on a runtime platform of Kenyon's invention.

As per claim 36, Williams further teaches the abstract design functionality of the web service implementation comprises a plurality of web service operations and a plurality of web service parameters; and wherein the web service archive further comprises a virtual interface to selectively expose a subset of the web service operations and parameters (see ¶0073, wherein Williams teaches at least part of the

business logic being represented by a flow language such as WSCL (Web Services Conversation Language), which allows the external visible behavior of a web service, its abstract interfaces (i.e. public processes and business models) (read as a virtual interface), to be defined using a plurality of “interactions” (read as a plurality of web service operations and a plurality of web service parameters, see also A. Banerji, et al. Web Services Conversation Language (WSCL) 1.0, W3C Note, World Wide Web Consortium, March 2002. URL <http://www.w3.org/TR/wscl10/>)

Furthermore, Williams teaches the virtual interface is published as a separate deployed web service (see ¶0082-0083, wherein the web service is advertised to a UDDI registry). However, Williams is silent on the UDDI registry being located on the application server, nevertheless, one of skill in the art would have been motivated to modify the teachings of Williams to place the UDDI registry at the application server. The obvious motivation for doing so would have been to allow for the discovery of web services from the application server (i.e. runtime platform, see Fig. 10, ref. 130).

As per claim 38, Williams further teaches registering the deployed web service with a web service registry on the application server (see UDDI registry) (see ¶0082-0083, wherein the web service is advertised to a UDDI registry).

Claims 43, 44, 46, 51, 52 and 54 are rejected under the same rationale as claims 35, 36 and 38 since they recite substantially identical subject matter. Any differences between

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the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

Claims 37, 45 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (US 2004/0015564) (“Williams”), in view of Kenyon et al. (US 6,604,113) (“Kenyon”), in view of A. Banerji, et al. Web Services Conversation Language (WSCL) 1.0, W3C Note, World Wide Web Consortium, March 2002. URL <http://www.w3.org/TR/wscl10/>, in further view of Fletcher et al. (US 2003/0055878) (“Fletcher”).

As per claims 37, 45 and 53, Williams further teaches wherein the web service archive further comprise a second virtual interface to selectively expose a second subset of the web service operations and parameters, wherein the second subset of the web service operations and parameters is different than the first subset of the web service operations and parameters (see ¶0073, wherein Williams teaches at least part of the business logic being represented by a flow language such as WSCL (Web Services Conversation Language), which allows the external visible behavior of a web service, its abstract interfaces (read as a first and second virtual interface), to be defined using a plurality of “interactions” (read as a plurality of web service operations and a plurality of web service parameters, see also A. Banerji, et al. Web Services Conversation Language (WSCL) 1.0, W3C Note, World Wide Web Consortium, March 2002. URL <http://www.w3.org/TR/wscl10/>)

However, Williams does not teach wherein the second virtual interface is separately publishable as a second deployed web service within the application server.

However, in the same art of web services, Fletcher teaches a web service system for identifying multiple service interfaces from a single web service (For example, programmatic operations might be designed to select all public methods for exposing, or perhaps to select only the “getter” public method) (see ¶¶0055-¶¶0056). Furthermore, Fletcher teaches wherein, after identifying the public interface, a WSDL markup language syntax is programmatically created to specify this information (see ¶¶0056) and is thereafter published to a UDDI registry (see ¶¶0059).

One of skill in the art would have been motivated to modify the teachings of Williams with the teachings of Fletcher for separately deriving and publishing the web service abstract interfaces of Williams' invention (i.e. public processes and business models) as first and second web services, to a UDDI registry. The motivation for doing so would have been to allow for the discovery of public processes within Williams' web service.

Claims 39-42, 47-50, and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (US 2004/0015564) (“Williams”), in view of Kenyon et al. (US 6,604,113) (“Kenyon”), in further view of A. Banerji, et al. Web Services Conversation Language (WSCL) 1.0, W3C Note, World Wide Web Consortium, March 2002. URL <http://www.w3.org/TR/wscl10/>, in further view of Sharma et al. (US 7,159,224) (“Sharma”).

As per claim 39 Williams does not expressly teach wherein registering the deployed web service comprises automatically registering the deployed web service with a java naming and directory interface (JDNI) on the application server.

However, in the same art of web services, Sharma teaches registering a deployed Web service with a Java Naming and Directory Interface (see Sharma, JNDI namespace, see col. 22, lines 9-22).

One of skill in the art would have been motivated to modify the teachings if Williams with the teachings of Sharma for registering a deployed web service with a JDNI on the application server. The motivation for doing so would have been to advertise Williams web services according to the well known Java programming platform.

As per claim 40, Williams does not teach wherein executing the abstract design-time functionality as the deployed web service within the application server comprises executing the abstract design-time functionality in a web services container of the application server, wherein the deployed web service to operate within the web services container on the application server.

However, in the same art as noted above, Sharma teaches a system for deploying a web service in a web services container (see abstract, "deploying on a container").

One of skill in the art would have been motivated to modify the teachings of Williams with the teachings of Sharma for deploying the web service in a container. The

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motivation for doing so would have been to better organize the run-time environment of the deployed web service.

As per claims 41 and 42, Williams in view of Sharma further teaches wherein the web services container comprises a dedicated implementation container comprises an Enterprise Java Bean (EJB) container or a servlet container (see Sharma, “including Enterprise Java Beans (EJB) and Web containers”, see col. 6, lines 4-9).

The same motivation that was utilized for combining Williams and Sharma in claim 40 applies equally well to claims 41 and 42.

Claims 47-50 and 55-58 are rejected under the same rationale as claims 39-42 since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

Response to Arguments

Applicant's arguments with respect to claims 35-58 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENDAN Y. HIGA whose telephone number is (571)272-5823. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brendan Y Higa/
Examiner, Art Unit 2453

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457